

## NEW MIDGES ON PINE AND GRASS

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There was a mysterious though scattered injury to pine needles on the Laboratory grounds in 1932. The following year this was definitely associated with a gall midge larva. The white pine and Scotch pine were the species affected. An individual maggot was found at the very base of the needle bundle, the infestation being easily recognized by a slight discoloration, later a yellowing, especially on Scotch pine, also by the readiness with which needles were picked from the branch. An infestation occurred on a small white pine at North Stamford and by the last of June there was possibly 80 to 90 per cent of the foliage killed, the infestation evidently progressing outwardly on the tips with the development of the new needles. The work of the insect was also observed on Scotch pine at the Cross River Reservoir, a little north of Bedford, New York.

Infested needles collected the last of June, 1934, were carried over and the first midge emerged May 28, 1935, the insects issuing in numbers early in June. The first infested needle bundles were observed June 25 and on July 5 many full grown larvæ were found. The maggots drop and winter in the debris on the ground. The work of this insect is very similar to that depicted for *Cecidomyia brachyntera* Schwagr., and the adults agree in a general way with the illustrations for this insect, though it is impossible from available descriptions to be certain that the two are identical and the insect is therefore described below as new.

### *Itonida pinifolia* new species

MALE. Antennæ about one-half longer than the body, rather thickly haired, dark straw, basal segments yellowish, the fifth with stems two and one-fourth and two and one-half times their diameters respectively; basal enlargement subglobular, with a whorl of stout setæ and a subapical circumfilum, the loops extending to the base of the pyriform distal enlargement, the latter with a length one-half greater than its diameter, a subapical, stout

whorl of stout setæ and sub-basal and subapical circumfila, the loops moderately stout; terminal segment having the basal portion of the stem with a length about five times its diameter, the distal enlargement subcylindrical, with a length three times its diameter, somewhat swollen basally and apically and with a tapering, apical process with a length nearly three times its diameter. Palpi, first segment short, the second and third subequal, with a length about three times the width, the fourth one-half longer than the third. Mesonotum dark orange, the submedian lines pale orange; scutellum dark orange, postscutellum and abdomen reddish-orange. Wings hyaline, the third vein uniting with costa well beyond the apex. Halteres, coxæ and femora pale orange, paler basally, the femora distally, tibiæ and tarsi mostly pale straw, except that the third, fourth and fifth segments of the posterior tarsi are lighter, the third and fourth being narrowly ringed distally with fuscous. Claws simple, rather strongly curved, the pulvilli rudimentary. Genitalia pale yellow, basal clasp segment short, stout, terminal clasp segments moderately broad and tapering; dorsal plate short, deeply and triangularly emarginate, the lobes broad, ventral plate short, broad, broadly and roundly emarginate.

FEMALE. Length 2.5 mm., antennæ about three-fourths the length of the body, sparsely haired, dark straw, the fifth segment with a stem one-fourth the length of the cylindrical basal enlargement, which latter has a length about two and one-half times its diameter. Terminal segment cylindrical, with a length three times its diameter and apically with a conical tip, having a length about one-half greater than its major diameter. Palpi, first segment oval, the second to fourth slender, the last with a length four times its width; mesonotum reddish-brown with pale orange submedian lines; scutellum and postscutellum pale orange; abdomen a nearly uniform reddish-orange; wings slightly cloudy; ovipositor pale straw with a length about one-half that of the abdomen, the terminal lobes broadly oval. Other characters as in the male.

LARVA. Length full grown 3 mm., moderately stout, pale yellowish or yellowish-orange; head broadly triangular, the antennæ short, two-segmented; the breastbone bilobed anteriorly, tapering to a point, brown, the body smooth, the posterior segment with a pair of stout, conical up-curved, fleshy processes.

A series of gall midges reared from *Phragmites communis* by Dr. Paul S. Welsh, of the Zoology Department of the University of Michigan, together with some additional material, was received from Dr. Harold Morrison, of the Bureau of Entomology and Plant Quarantine. There is at hand no description of the gall or deformity in which the insect occurred, though this was presumably an aborted bud-like shoot. Most of the material bore

the label "Maple Bay, Douglas Lake, collected October 2, 1934 and reared May 2, 1935." Other material was labelled "Oak Harbor, Ohio, 7, 9, 1928, reared by H. G. Walker from cocoons in Phragmites." Another adult was reared from a larva collected at Crooked River, Michigan, Cherboygan County, October 8, 1934, issuing April 28, 1935.

This interesting species, on account of its markedly reduced palpi, is referred to the genus *Asteromyia*, and is presumably related to *Asteromyia agrostis* O.S., from which it is easily separated by the greater number of antennal segments in both sexes and the silvery spotted, instead of white-margined abdominal segments.

#### *Asteromyia phragmites*, new species

MALE. Length 1.25 mm., antennæ extending to the base of the abdomen, dark brown; twenty-one sessile segments, the fifth with a length a little greater than its diameter; terminal segment ovate, broadly rounded apically and with a length about three-fourths its diameter; palpi, first segment short, quadrate, second about as long and the third slender, one-half longer than the second; mesonotum dark reddish brown; scutellum and postscutellum dark brownish yellow; abdomen dark brown with rudimentary sublateral patches of silvery scales on each abdominal segment; wings thickly scaled along the anterior margin and with a distinct white spot at the union of the third vein and costa; halteres pale yellowish basally, fuscous apically, coxæ and femora basally pale yellowish; tibiæ and tarsi mostly light straw, the posterior tibiæ and tarsi somewhat darker, except the pale yellowish fourth and fifth tarsal segments; claws strongly curved, unidentate, the pulvilli as long as the claws.

FEMALE. Length 2 mm., antennæ extending to the base of the abdomen; dark brown; twenty-six antennal segments, the fifth with a length a little less than its diameter; terminal segment oval with a length a little greater than its diameter; mesonotum dark reddish brown with white, silvery scales on the submedian lines; scutellum whitish transparent; postscutellum fuscous yellowish; abdomen dark brown, the segments with indistinct submedian, silvery patches; ovipositor nearly as long as the abdomen, the terminal lobes slender, with a length five times the width; other characters about as in the male.

Types deposited in the United State Museum of Natural History.